



Theater Asset Collection Handbook



This handbook was compiled from unclassified sources.

For further information refer to the MARPP (Manned Airborne Reconnaissance Program Plan).

U-2

Role & Mission

-continuous day or night, high-altitude, all-weather, stand off surveillance of an area in direct support of U.S. and allied ground and air forces



COMMS: see MARPP

Capabilities: multi-sensor photo

electro-optic

infrared and radar imagery

Max alt.: above 70,000

Endurance: 9-11hrs

Range: 7,000 nm

Time on Station:

Crew: 1

RC-135V/W RIVET JOINT

Role & Mission

- Provide direct, near real-time reconnaissance info and electronic warfare support to theater commanders and combat forces
- SIGINT collection asset



Comms: secure UHF, VHF, HF and SATCOM
data: TADIL/A and TIBS

Capability: see MARPP

Max alt: 35,000 ft
Endurance: 11 hrs, 20 hrs with
Range:
Time on Station:
Crew: see MARPP

C-130 PACER COIN

Role & Mission

- employed as a day/night, all-weather reconnaissance and surveillance system which provides IMINT
- used to support special operations and U.S. counter-drug operations

COMMS:

- HF
- VHF
- secure voice

Capability:

- Infrared (IR)
- TV
- panoramic optical camera
- Infrared Line Scanner (IRLS)
- Forward Looking Infrared Radar (FLIR)



Max alt: 16,000 ft

Endurance: 11 hrs

Range: 2,049nm to 4,522nm
depending on payload

Time on Station:

Crew: 4-9

C-130 SENIOR SCOUT

Role & Mission

- A SIGINT collection asset. Consists of a monitoring sensor package designed for in-flight removal in any C-130E/H aircraft provides rapidly deployable worldwide SIGINT support for theater, national, counternarcotics special operations requirements



	Platform: EC-130E Comfy Levi
Comms: HF / VHF / secure voice	Max alt: 30,560 ft
	Endurance: 7-8 hrs, 16 if refueled
Capability: see MARPP	Range: 2,049nm to 4,522nm dependent on payload
	Time on Station:
	Crew: 4 - 9

RC-135U COMBAT SENT

Role & Mission

- Employed as a Scientific and Technical Intelligence (STINT) and Electronic Intelligence (ELINT) Collection System



Comms:

-TIBS

-secure voice

Capability:

See MARPP

Max alt: 33,000ft

Endurance: 10 hrs /18 if refueled

Range:

Time on Station:

Crew: 5

RC-135S COBRA BALL

Role & Mission

- Is used for tracking ballistic-missile test at long range



Comms:

- HF
- VHF
- UHF
- UHF SATCOM
- TIBS
- JTIDS

Capability:

- See MARPP

Max alt: 35,000ft

Endurance: 8-10hrs

30 if refueled

Range: see MARPP

Time on Station: see MARPP

Crew: see MARPP

JOINT STARS

Role & Mission

JSTARS is a long-range, air-to-ground surveillance system designed to locate, classify and track ground targets in all weather conditions



Comms :

SATCOM

UHF

HF

VHF

JTIDS datalink

Platform: E-8C

Max Altitude: 42,000 ft

Endurance: 11 hrs - 20 hrs with

Range: 150 mi

Time on Station:

Crew: 22

Capability:

Side Aperture Radar (SAR)

Moving Target Indicator (MTI)

PIONEER

Role & Mission

- PIONEER is a short range UAV
- provides capability to provide imagery intelligence (IMINT) for spotters for naval gunfire support



COMMS:

Data Link: C-band/UHF

Max alt: 15,000ft

Endurance: 3.5 - 4 hrs

Range: 185 km

Time on Station: 3.5 - 4hrs

Crew: 0

Capability:

optical daytime camera

thermal nighttime camera

RC-12 K/N GUARDRAIL COMMON SENSOR

Role & Mission

- provides near real-time SIGINT and targeting information
- collects selected low, mid and high band radar signals, identifies/classifies them, and determines their location



Comms: see MARPP

Capability:

- ELINT collection and DF
- COMINT collection and DF

Max alt: 30,000ft
Endurance: 5.5 hrs
Range: up to 1,666nm
Time on Station:
Crew: 1-2

EH-60L QUICKFIX

Role & Mission

-provides the capability to listen to, locate for hard-kill targeting or order-of-battle resolution or render ineffective through jamming opposition command and control and fire control nets and identify and locate counter/mortar, counter/battery, ground surveillance and other radar emissions



Comms:

UHF

VHF

secure voice

Capability:

See MARPP

Platform: EH-60L Blackhawk

Max Alt: 5,835nm

Endurance: 2 hrs

Range: 315nm

Time on Station:

Crew: 3

DHC-7 ARL

Airborne Reconnaissance - Low

Role & Mission

-multifunction, day/night, all-weather reconnaissance
intel asset developed to support the requirement for
a low profile intelligence aircraft



Comms/Capability:

SIGINT = HF/VHF/UHF

IMINT = Infrared Line Scanner (IRLS)

Forward Looking Infrared Radar (FLIR)

Daylight Camera

COMMON = Side Aperture Radar (SAR)

Moving Target Indicator (MTI)

Low Level TV (LLTV)

satellite datalink

Platform: modified DHC-7

Max alt: 25,000 ft

Endurance: 8 hrs

Range: 1500 nm

Time on Station:

Crew: 7

Predator

Role & Mission

- medium altitude, long-endurance unmanned aerial vehicle system
- used for reconnaissance, surveillance and target acquisition



Comms:

Capability:

Electro-Optical (EO)

Forward Looking Infrared Radar (FLIR)

Side Aperture Radar (SAR)

Max altitude: 26,000 ft

Endurance: >40 hrs

Range: 400 nm

Time on Station: 24 hrs at

Crew: 0

LRSU

(Long-Range Surveillance Unit)

Role & Mission

- LRS soldiers provide the commanders with a HUMINT collection capability that is near real-time, all weather and all-terrain
- LRSU mission last between 24 hrs to 7+ days
- capable of HF or tactical satellite communications
- typically use 6 man teams

AN/PPS-15

Role & Mission

- a Ground Surveillance Radar, employed in light units
- it is man-transportable
- is best used in scenarios of limited visibility



Range:

- 1.5 km vs personnel
- 3 km vs vehicles
- can only detect moving targets

AN/PPS-5B

Role & Mission

-a Ground Surveillance Radar, employed in light and heavy units

-technically man portable, but is normally transported in a HMMWV or M113

Range:

6 km vs personnel

10 km vs vehicles

-can only detect moving targets



AN/GSQ-187 REMBASS

Remotely Monitored Battlefield Sensor System

Role & Mission

- Detects, classifies and determines the direction of movement of intruding personnel and vehicles

Sensors:

DT-561 Magnetic

range: 3m - personnel
15m - wheeled
25m - tracked

DT-562 Seismic/Acoustic

range: 50m - personnel
250m - wheeled
350m - tracked



DT-565 Infrared

range: 20m - personnel
50m - vehicle

AN/PRD-12 (LMRDFS)

Role & Mission

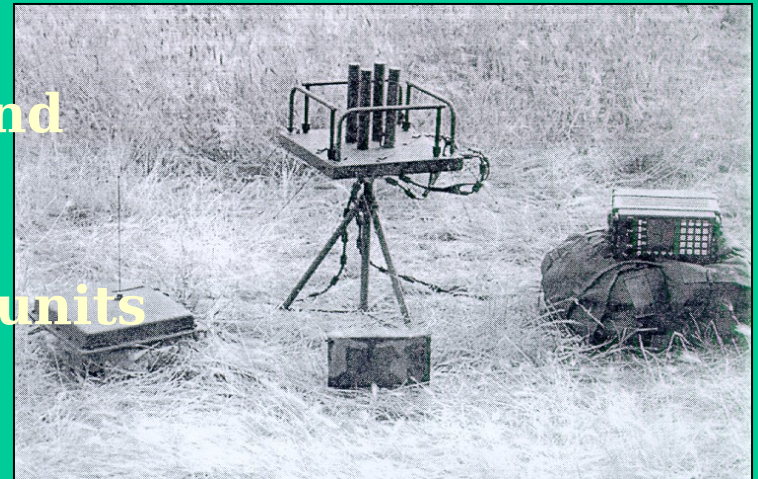
- a lightweight man-transportable Radio Direction Finding System
- capable of intercept in the HF/VHF/UHF frequency system
- Electronic Support / COMINT asset
- found in 2 varieties
 - Low Level Voice Intercept (LLVI), found in light units
 - AN/TRQ-32 found in light and heavy units



AN/PRD-13

Role & Mission

- man portable communications band DF intercept system
- replacing the AN/PRD-12 in light units
- COMINT asset



SSMS SOF SIGINT Manpack System

Role & Mission

-COMINT

-DF intercept

-jumpable, manpackable, lightweight intercept
and direction finding system

-provides unconventional collection and force
protection for Special Forces units

-used by Special Forces Group MI Detachment
SOF-A Teams



AN/PSQ-9

Team Portable COMINT System

Role & Mission

-COMINT

-Electronic Support

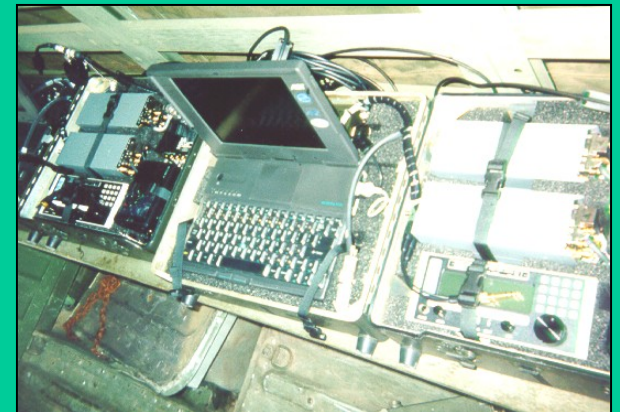
Intercept: 0.5 -1000 Mhz

DF: 0.5 - 500 Mhz

-Man-portable communications band DF/intercept system

-Used by USMC Standard Collection Teams

-WAN capable



AN/TRQ-32 TEAMMATE

Role & Mission

-COMINT

-Electronic Support

Intercept: .5 - 500 Mhz

DF: 20 - 150 Mhz*

-Prime Mover: M1097



-Interoperable with AN/PRD-12, AN/TSQ-138, Quickfix

-Includes AN/PRD-12 and AN/TSQ-175 TIGER

-capable of intercept in the HF/VHF/UHF bands, but can only find in the VHF band

-crew: 4

AN/TSQ-138 TRAILBLAZER

Role & Mission

-provides COMINT intercept in the HF/VHF/UHF ranges

-Electronic Support

Intercept: .5 - 500 Mhz

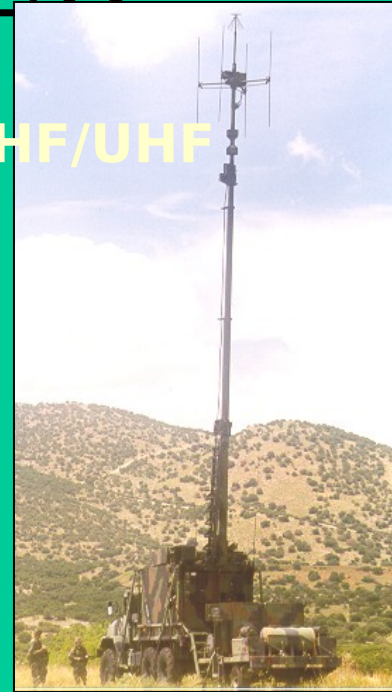
DF: 20-80 Mhz

-Prime Mover: 5 ton

-Requires Trailer Support Unit (TSU) with 30 kW Generator

-Interoperable with AN/TRQ-32 and Quickfix

-Found only in heavy GS companies



AN/TLQ-17 TRAFFICJAM

Role & Mission

-COMINT

-Electronic Support/ Electronic Attack

Intercept: 20 - 80 Mhz

Output: 550+ watts

-Prime Mover: M1037

-Cannot Direction-Find

-Found in GS companies

-Primary use as a jammer, can be used for deception operations



AN/MLQ-36 MEWSS

Role & Mission

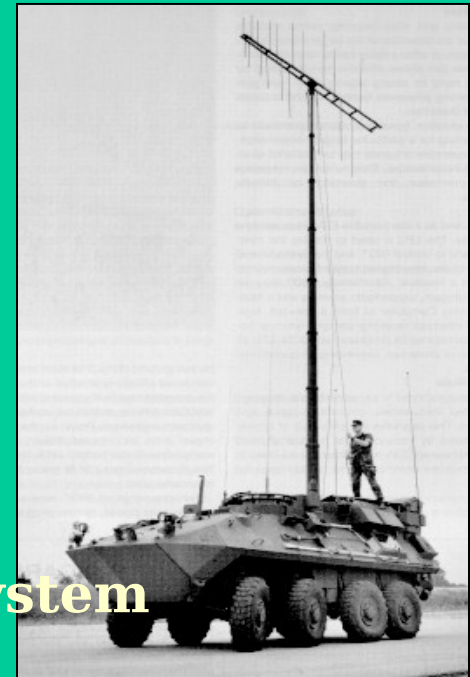
-COMINT

**-Electronic Support/ Electronic Attack
Intercept
DF**

-Mobile Electronic Warfare Support System

-Prime Mover: LAV-25

-Found in USMC Radio Battalions



GBCS

Role & Mission

- **The Ground-Based Common Sensor is the Army's only on-the-ground, all-weather, all-terrain, self-contained, fully integrated, 24-hour signal intelligence and electronic warfare asset**



- **COMINT and ELINT asset**

- **provides a “smart jamming” capability against communications emitters**

Comms:

**Capability: COMINT
ELINT**

Fire Finders AN/TPQ-36 AN/TPQ-37

AN/TPQ-36

Role & Mission

-used by artillery battalions to locate hostile weapons, both mortar and short-to-medium range

crew: 9



AN/TPQ-37

Role & Mission

-is a mobile Phased Array Artillery Locating Radar System

-used to detect and accurately locate enemy artillery and rocket weapons to permit rapid engagement with counterfire



EP-3E ARIES II

Role & Mission

- electronic warfare and reconnaissance
- missions include anti-surface warfare, anti-submarine warfare, mining, reconnaissance and surveillance



**Comms: HF / VHF / UHF
UHF SATCOM**

**Capability: COMINT
-Electronic Support
ELINT**

**Max alt: 29,000ft
Endurance: 12+ hrs
Range: 3000 nm
Time on Station: 3 hrs
Crew: 24**

REEF POINT

Role & Mission

- a COMINT and ELINT collection asset



Comms:

UHF

VHF

HF

SATCOM

Platform: P-3B/C

Max alt: 8,625m

Endurance: 10 hrs

Range: 7,408 km

Time on Station:

Capability:

COMINT/ELINT

Inverse Synthetic Array Radar (ISAR)

Crew:

F-14 TARPS

Tactical Airborne Reconnaissance Pod System

Role & Mission

- IMINT collection asset



Comms: UHF

Platform: F-14 Tomcat

Max alt: 50,000ft

Endurance: 3 hrs

Capability: KS-87 frame camera

Range: 1,740 nm

KA-99 low-alt. Panoramic camera

Mission Radius: 380 to 500nm

AAD-5 imaging infrared sensor

Time on Station:

Crew: 2

Outboard

AN/SSQ-108(V)

Role & Mission

- Provides electronic warfare signals acquisition and direction finding with the capability to detect, locate and identify hostile targets and input this information into a tactical data system

Capability: SSQ-108 Outboard VHF Adcock direction finding
24 small deck edge antennas for LM / MF-HF band direction finding

AN/SSQ-80A

Role & Mission

-signal acquisition system intended to augment suites or to be installed as a carry-on system in non-SSES ships

SSES

Ships Signal Exploitation Space

Role & Mission

-provides SIGINT based I&W information

Combat DF

Role & Mission

- automated long range hostile target acquisition and direction finding system can detect, locate, categorize and arc



Comms: HF DF
VHF-UHF
LAN
Skywave

Capability:

Crew: